

LOVE CANAL 2001 ANNUAL REPORT

**Miller Springs Remediation Management, Inc.
Niagara Falls, New York**

FOREWORD

The 2001 Love Canal Annual Report covers those developments and activities that occurred during the calendar year. This is the seventh Annual Report issued by or on behalf of Occidental Chemical Corporation (OCC). Annual Reports prior to the 1995 calendar year were issued by the New York State Department of Environmental Conservation (NYSDEC).

Effective July 1, 1998, Site operational responsibility for the Love Canal Site was assigned by OCC to Miller Springs Remediation Management, Inc. (MSRM), a Glenn Springs Holdings, Inc. (GSHI) affiliate. GSHI is a subsidiary of Occidental Petroleum Corporation.

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SUMMARY

Responsibility for Site operations and control passed from the NYSDEC to OCC on January 5, 1995; MSRM currently manages the Site on behalf of OCC. The Site was reclassified by the NYSDEC to Class 4 on January 12, 1995; this classification applies to a Site that has been properly closed and requires continued management. Operations and activities in 2001 were routine in nature. The collection system has maintained inward gradients and has been effective in preventing chemical migration. The treatment facility has met all conditions of the sewer use discharge permit.

LOVE CANAL LEACHATE COLLECTION AND TREATMENT

Processed water from the Site's treatment facility is discharge to a permitted sanitary sewer (Permit #44) issued by the City of Niagara Falls (City). In 1998 the permit was modified to include the treatment of leachate water from the 102nd Street Landfill. The City of Niagara Falls re-issued the wastewater discharge permit to OCC on January 6, 2000, which will be renewed in five years.

In March 1999 leachate began pumping from 102nd Street into the Love Canal collection system in the south end of the Site. The four-well system at 102nd Street transfers leachate to Love Canal (PC3), where it is processed along with the groundwater collected at the Site.

The Love Canal Leachate Treatment Facility met all discharge requirements of the City permit during the year. The leachate collection system continued to function as designed, drawing groundwater toward the underground drain system from both the landfill and the surrounding area beyond the cap.

2001 LOVE CANAL TREATMENT FACILITY

- A total of 4,277,500 gallons of leachate were treated and discharged from the Site, from which a total of 3,254,348 gallons of leachate was collected on-Site and the remaining 1,023,152 gallons pumped from the 102nd Street Site.

During 2001, the following operation and maintenance activities were performed at the Site.

Operations Items:

- The Treatment Building process floor was prepped and re-coated with a water-based epoxy paint.
- Replacement of the breaker/fuse on the Decon Drum Storage Facility (DDSF) sump pump.
- Replaced the bearing on the Treatment Building exhaust fan.
- An internal visual inspection of the Main Carbon Transfer Bed (V-3) was performed.
- Annual inspection of the back-flow preventers was performed.
- The DCF pump motor was replaced in the Main Storage Tank (Station #4).
- The DCF pump was replaced in the Main Storage Tank (Station #4) due to a worn bearing.
- The PC3A North Pump was pulled. The pump was plugged with debris. The pump was cleared of debris and replaced in PC3A.
- The West Pump in PC3 was replaced.
- The PC3 East Pump was rebuilt, and replaced.
- Upgraded PC3, PC3A, PC1A and the Influent flow meters.
- Replaced PC3 and PC3A Isolation valves in the Valve Chamber. They were changed from butterfly to full ported ball valves. Piping modifications were made to fit the new valves in the chamber.
- Replacement of emergency exit lights in the Treatment Building.

Non-Operations Items

- Outside light fixtures were replaced on the Treatment Building. Photo sensor eyes were replaced as needed on the Treatment, Administration and DDSF.
- Replacement of the air conditioner condenser for the Administration Building.
- Replacement of the back-flow preventer in the Administration Building.
- Installed expansion plugs in the abandoned sanitary sewer/line (MH-97.107) on 97th Street (within Site). The manhole was then filled with concrete. Manholes on either end had been decommissioned and filled previously by the NYSDEC.
- Three slight depressions were filled with topsoil and then graded to the existing cap slope.
- Installed a new expansion tank inline with the hot-water tank in the Administration Building.

Community Outreach:

Community Outreach programs during 2001 included such activities as beautification of the neighborhood and tours of the facility.

Beautification

- Planting of over 72 trees (Oaks, Pines and Maples) along the perimeter of the Site, concentrating along 100th Street (East Side of Site).
- Thirty-five (35) acres adjacent to the Site were mowed (as a one-time event) from 100th Street to 102nd Street, spanning from Colvin Blvd. to Frontier Avenue, as part of community outreach and area beautification.
- Removal of the former Decon-Pad west of the Administration Building along 95th Street, which included demolition, grading with topsoil and seeding.
- Maintenance and landscaping of the Site and surrounding areas.
- Maintenance of flowerbeds and shrubs along Colvin Blvd. and Frontier Avenue.
- Cleanup of discarded debris around fence line and adjacent lots.
- Communication with neighbors and local officials on patrol and monitoring for illegal dumping of debris along roadsides.

Tours

Five (5) tours of the facility were given throughout the year to representatives of various environmental agencies (domestic and foreign) and other community groups. The tours included both an informational orientation accompanied with visual aids followed by a guided tour of the treatment facility and landfill. Tours of the facility throughout the year included:

- Trainees of the Western New York Brownfields Training Initiative, a government sponsored program through the University of Buffalo.
- World-Connect, Mr. Cheng Chieh-Sung, Section Chief of the Bureau of Waste Management, Environmental Protection Agency of Taiwan.
- World-Connect: in conjunction with U.S. Department of State's International Visitor Program: Mr. Fereenc Szalay, Mayor of Szolnok, Hungary. Joined by representative from the U.S. State Department and interpreter.

- World-Connect: Hungarian delegates, which included a representative from Europe Center for Nature Conservation, Humusz Hulladék Munkaszövetség (Waste Management Alliance, NGO), Prime Minister's Office Environmental Advisor, CEVA Hungary Ltd., Environmental Protection Inspectorate of Trans-Tisza Region, and interpreters.
- Several Japanese visitors from the Kansai Power Company which included the Director of Construction, Design Section Manager, Environmental Protection Manager, and Director of Kanasi Environmental Center. Also present, from the Kubota Corp., was the Group Leader of the Environmental Monitoring Group, and interpreter.

Communications

The City of Niagara Falls Fire Department toured the Site and reviewed the Emergency Response Plan; this review included property access during any emergency responses, layout of Site and location of buildings, storage areas of equipment and reactive materials (gasoline, paints etc.) and MSRM personnel responders list.

The Annual Report for 2000 was issued to twenty-seven citizens and agencies last year. The report summarizes items such as the amount of groundwater treated on Site and then discharged to the City's sanitary sewer, maintenance activities and other non-operational activities for the year.

THE LONG-TERM MONITORING PROGRAM

The Long-Term Monitoring Program examines hydrogeologic and chemical data from the Love Canal area in order to evaluate the overall effectiveness of the containment system. In 2001 one round of samples was collected from 39 long-term monitoring wells that surround the Site.

Quarterly groundwater elevations were taken in six groups of piezometers located around the Site. The 2001 data is similar to previous data gathered from 1989 to 2000, indicating that the barrier drain is functioning as designed. Both the hydrological and chemical evidence supports this conclusion.

The 2001 analytical results are consistent with previous Long-Term Monitoring analytical results; there was minimal detection of chemicals in the wells sampled.